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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/772,176

01/29/2001

James A. Proctor JR.

TAN-2-1508.01.US

1093

24374 7590 11/16/2009

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EXAMINER

BURD, KEVIN MICHAEL

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

11/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/772,176	<b>Applicant(s)</b> PROCTOR, JAMES A.	
	<b>Examiner</b> Kevin M. Burd	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-14,16,17,19,21,22,25-37,39 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-14,16,17,19,21,22,25-37,39 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. This office action, in response to the amendment filed 8/24/2009, is a final office action.

### ***Response to Arguments***

2. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new grounds of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5-14, 16, 17, 19, 21, 22, 25-37, 39 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilmour et al (US 5,128,873).

Regarding claims 1, 2, 14, 16, 17, 21, 22, 34-37 and 42, Gilmour discloses a method of adapting to changes in an RF signal. RF pulses are transmitted from one aircraft to another aircraft as shown in figure 1. The received signals are measured. If the desired signals are received, the aircraft will switch to an omni-directional antenna to

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transmit a low data rate pulse train. The first aircraft will then switch back to a directional antenna to receive pulses (column 3, lines 16-30). The received pulses will be indicative of changes from the previous signal and the received signal is used to determine bearing and distance to the second aircraft (abstract). Therefore, the first aircraft determines the received modulated signal has the proper amplitude, frequency and phase since all of these attributes are required to identify the received signal as being transmitted from the second aircraft. The first aircraft selects the antenna mode to be adjusted and then adjusts the mode of the mobile station multi-mode antenna so pulses can be transmitted.

Regarding claims 5-7 and 25-27, Gilmour discloses the operation of the AGC in the first and second aircraft. The gain is increased so the signals can be received properly (column 6, lines 43-62).

Regarding claims 8-13, 19, 28-33 and 39, Gilmour discloses the method stated above. MPEP 2111.04 discloses claim scope is not limited by steps that suggests or makes optional but does not require steps to be performed. The modulation attribute, parameter and adjustment being the specifically recited modulation attribute, parameter and adjustment in these dependent claims are optional limitations since different modulation attributes, parameters and adjustments are met by the reference.

4. Claims 1, 2, 5-14, 16, 17, 19, 21, 22, 25-37, 39 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Proctor Jr. (US 2005/0018635).

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Regarding claims 1, 2, 21, 34 and 42, Proctor discloses a method of adapting a signal to specific channel conditions. A transmitted signal will be received by a receiver. As channel conditions degrade, the quality of the information transmitted will also diminish. The receiver will receive the signal and determine if errors in the received signal are present. Errors are detected as deviations of amplitude, frequency or phase of the received signal. The FEC coding rate is adapted to compensate for the changes in the signaling path and the FEC coding rate will change accordingly (abstract). The communication system is shown in figure 1. Therefore, the metric indicative of change in a signaling path will be the quality of the signal which is represented in amplitude, frequency or phase errors being present in the received data. The FEC coding rate is selected to be adjusted and is then adjusted.

Regarding claims 19 and 39, Proctor discloses users experiencing good communication conditions with low distortion may be allocated higher capacity (abstract).

Regarding claims 5-13, 16, 17, 25-33 and 35-37, Proctor discloses the method stated above. MPEP 2111.04 discloses claim scope is not limited by steps that suggests or makes optional but does not require steps to be performed. The modulation attribute, parameter and adjustment being the specifically recited modulation attribute, parameter and adjustment in these dependent claims are optional limitations since different modulation attributes, parameters and adjustments are met by the reference.

***Conclusion***

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/  
Primary Examiner, Art Unit 2611  
11/9/2009